

We are a small business – under 20 people – that sell high precision GPS to the construction, survey, agriculture and mining markets. If the accuracy of GPS was degraded by the LightSquared technology, our business would suffer a blow that would leave all of my company and thousands of construction workers out of work.

I personally have spent 12 years of my life growing with GPS technology. Arizona's construction and survey markets have already been devastated by the housing bubble. The owner of our company has stood behind his commitment to us and our customers – keeping as many of us employed in the downturn and possible.

The issue is that Lightsquared plans on sending their cellular data over a network that uses a transmission frequency directly next to the frequency that GPS signals are transmitted on. These signals are so close together that GPS receivers will unintentionally pick up Lightsquared's transmission – causing the GPS receiver to get confused. In flight, you may be at 5,000 feet over Montana – but the receiver thinks you are 10,000 feet over the ocean.

Data transmission frequencies are very much like color frequencies – or wavelengths. Think of the color yellow. Yellow is in the visible spectrum of wavelengths that our eyes see as “yellow”. As the wavelength of yellow gets shorter – or its frequency speeds up, our eyes begin to detect the color as orange. In between those two wavelengths is a blend of orange and yellow- you would probably describe as “orangeish-yellow”. This blended area is where a GPS receiver would get confused.

If Lightsquared is authorized by the FCC to transmit on their currently proposed frequency – the effect would hit the Arizona construction market like a tsunami, destroying all that is left. This because GPS technology has enabled Arizona's contractors to build sites more efficiently, more productively, with limited resources, in less time. With GPS tax payers are paying less for better infrastructure that is built better in less time.